



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RESPONSE

APPLICANT(S) Wydra et al
SERIAL NO.: 09/485,082
DATE FILED: April 19, 2000

ATTY DOC NO.: P00,0001-01
GROUP ART UNIT: 1762
EXAMINER: M. Barr
CONFIRMATION NO. 1453

#16
Jude
5/10/02
COPY OF PAPERS
ORIGINALLY FILED

INVENTION: "METHOD FOR MANUFACTURING AN ADHESION LAYER
FOR A HEAT INSULATION LAYER"

Assistant Commissioner for Patents
Washington, D.C. 20231

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MAY 07 2002
TC 1700

S I R:

In the Office Action mailing January 24, 2002, claims 1-3, 8 and 10-25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Olson et al in view of Rigney and GB 2269393 by Floge et al.

It is respectfully submitted that independent claim 1 and dependent claims 2, 3, 8 and 10-25 are not obvious to a person of ordinary skill in the art in view of the three references for the following reasons. The U.S. Patents to Olson et al and Rigney in addition to not teaching a step of applying a heat insulating layer on an adhesive layer, do not teach or suggest the advantages of forming an adhesive layer with the grain size and the cavity proportions according to claim 1. As pointed out in Applicant's disclosure on page 1, lines 8 and 9, adhesive layers must comprise a certain roughness and surface topography for clamping to the outer layer. Since different thermal expansions occur in the heat insulating layer and in the material of the metallic component part, the adhesion layer must compensate for this (page 1, lines 16-18), and an improved thermal fatigue resistance as well as advantageous expansion behavior occurs with the grain size and cavity proportions as set forth in the claims (page 2, lines 25-29). Thus, Rigney and Olson, do not teach applying the

heat insulating layer to the adhesion layer and do not teach producing an adhesion layer having the structure recited in Applicant's claim 1.

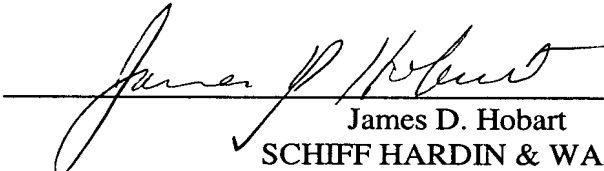
British reference (Floge) while teaching applying a heat insulating layer of CaO and MgO on a MCrAlY layer does not teach or suggest providing the layer having the above mentioned porosity and grain size for the adhesion layer. In fact, the British reference is concerned with machining the adhesion layers so that it has a smooth surface and in particular machining it between the step of applying the layer by low pressure plasma injection and the step of heat treating to homogenize the layer. It is also noted, that there is no teaching or suggestion of aluminizing or alitizing the layer to form the adhesion layer.

Therefore, it is submitted that while the individual steps recited in Applicants claim 1 may be individually recited in the three references, it is submitted that there is no teaching or suggestion of combining the steps of the three references in the particular sequence recited in the claims and eliminating the intermediate steps of the methods of the three references. For example, it is submitted without Applicants disclosure to suggest the sequence of steps, a person having the British reference would not have a porous outer surface required by Applicants adhesion layer since the British reference is very concerned about machining to provide a smooth surface before homogenizing. In fact, it is submitted that the British reference is teaching away from Applicants improvement which is utilizing the slip of mixing powders, applying the slip, then drying the slip, then alitizing the slip as recited in the first four steps of claim 1. For these reasons, it is submitted that the only suggestion for combining the three references as proposed in the rejection is Applicants disclosure and that the combination is an improper combination based solely on a hindsight reconstruction of the prior art.

It is also submitted, that even if the combination were proper, forming the adhesion layer having a grain size less than 75µm and the cavity proportions set forth in claim 1 is not taught. Therefore it is submitted that claim 1 and each of the dependent claims are clearly unobvious to a person of ordinary skill in the art in view of the three references and allowable.

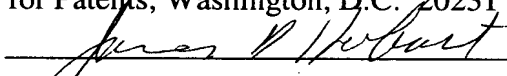
In view of the amendments and explanations contained hereinabove, it is respectfully submitted that this application is now in condition for immediate formal allowance and further reconsideration to that end is earnestly solicited.

Respectfully submitted,


(Reg. No. 24,149)
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I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on April 23, 2002.


James D. Hobart Attorney for Applicants



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In re application of: WYDRA, et al.

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For:

**"METHOD FOR MANUFACTURING AN ADHESION LAYER FOR A HEAT OF PAPERS
INSULATION LAYER"**

Assistant Commissioner for Patents
Washington D.C. 20231

RESPONSE

SIR:

Transmitted herewith is an amendment in the above-identified application.
☐ No additional fee is required.

The fee has been calculated as shown below.

CLAIMS AS AMENDED						
	(2) CLAIMS REMAINING AFTER AMENDMENT		(4) HIGHEST NO. PREVIOUSLY PAID FOR	(5) PRESENT EXTRA	(6) RATE	(7) ADDITIONAL FEE
TOTAL CLAIMS	20	MINUS	20	X	() X 9.00 () X 18.00	
INDEP. CLAIMS	01	MINUS	03	X	() X 42.00 () X 84.00	
Application amended to contain any multiple dependent claims not previously paid for.				() YES () NO	() \$140.00 () \$280.00 ONE TIME	
				TOTAL ADDITIONAL FEE FOR THIS AMENDMENT		NONE

* If the entry in Column 2 is less than the entry in Column 4, write "0" in Column 5.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20 write "20" in this space.

- ☐ Applicants petition the Commissioner of Patents and Trademarks to extend this time for response to the Office Action dated for ___ months so that the period for response is extended to _____. A check in the amount of \$_____ is attached to cover the cost of the extension. Any deficiency or overpayment should be charged or credited to deposit account No. 501519. A duplicate copy of this sheet is enclosed.
- ☐ A check in the amount of \$_____ is attached.
- ☐ A check for \$_____ accompanying IDS under 37 CFR 1.97(c) is attached
- ☐ A check for \$_____ and Petition for Consideration of IDS under 37 CFR 1.97(d) is attached.
- ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or to credit any overpayment to account No. 501519. A duplicate of this sheet is enclosed. When phoning re this application, please call (312) 258-5781.

SCHIFF HARDIN & WAITE (Customer Number: 26574)

BY

Patent Department

James D. Hobart

(Reg. No. 24, 149)

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ATTORNEY FOR APPLICANTS

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